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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,196	11/20/2003	Ravi Srinivasan	SMX 3165.2 (99-88CON1)	9808

321 7590 10/06/2006

SENNIGER POWERS  
ONE METROPOLITAN SQUARE  
16TH FLOOR  
ST LOUIS, MO 63102

EXAMINER
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LARKIN, DANIEL SEAN

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/718,196

Applicant(s)

SRINIVASAN ET AL.

Examiner

Daniel S. Larkin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16, 18-21, 26-46, 48, 49 and 53-85 is/are pending in the application.
- 4a) Of the above claim(s) 4, 5, 16, 18-21, 33, 46, 48, and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-15, 26-32, 34-45 and 53-85 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08) •  
Paper No(s)/Mail Date 0204.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of claims 1-3, 6-15, 26-32, 34-45, and 53-85 in the reply filed on 26 July 2006 is acknowledged.
2. Claims 4, 5, 16, 18-21, 33, 46, 48, and 49 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 26 July 2006.

### ***Specification***

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Objections***

4. Claims 1-3, 6-15, 26-32, 34-45, and 53-85 are objected to because of the following informalities:

Re claim 1, claim line 3: A -- colon -- should be inserted after the term "comprising".

Re claim 10, claim line 3: A -- colon -- should be inserted after the term

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"comprising".

Re claim 28, claim line 4: The numeral "1" should be corrected to read -- one --.

Re claim 30, claim line 5: The numeral "1" should be corrected to read -- one --.

Re claim 32, claim line 3: A -- colon -- should be inserted after the term

"comprising".

Re claim 32, claim line 16: The numeral "1" should be corrected to read -- one --.

Re claim 41, claim line 2: A -- colon -- should be inserted after the term

"comprising".

Re claim 42, claim lines 2 and 7: A -- colon -- should be inserted after the term

"comprising".

Re claim 42, claim line 5: The numeral "1" should be corrected to read -- one --.

Re claim 55, claim line 3: A -- colon -- should be inserted after the term

"comprising".

Re claim 56, claim line 2: This claim is depended from non-elected claim 5.

Re claim 56, claim line 3: A -- colon -- should be inserted after the term

"comprising".

Re claim 57, claim line 4: A -- colon -- should be inserted after the term

"comprising".

Re claim 58, claim line 3: A -- colon -- should be inserted after the term

"comprising".

Re claim 60, claim line 3: A -- colon -- should be inserted after the term

"comprising".

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Re claim 63, claim line 3: A -- colon -- should be inserted after the term "comprising".

Re claim 69, claim line 4: The numeral "1" should be corrected to read -- one --.

Re claim 76, claim line 3: A -- colon -- should be inserted after the term "comprising".

Re claim 81, claim line 2: A -- colon -- should be inserted after the term "comprising".

Re claim 82, claim line 3: A -- colon -- should be inserted after the term "comprising".

Re claim 83, claim line 3: A -- colon -- should be inserted after the term "comprising". Appropriate correction is required.

5. Claims 14 and 45 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Through applicants' election of microdetectors integral with the substrate, as claimed within claim 10, the subject matter of claim 14 is deemed to be redundant.

Through applicants' election of microdetectors integral with the substrate, as claimed within claim 42, the subject matter of claim 45 is deemed to be redundant.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-3, 6-15, 26-32, 34-45, 53, 54, 56, 57, 60, 69-85 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 1, claim lines 12 and 13: The phrase "or with one or more microchip bodies mounted on the substrate" is improper because applicants have elected to have the microdetectors integral with a substrate rather than the above recited limitation. These two recitations are not equivalents, therefore the objectionable limitation must be deleted in order for the claim to be limited to what applicants regard as their invention.

Re claim 6, claim lines 4-7: The microdetectors other than the thermal conductivity microdetectors must be deleted from the claim because applicants have expressly pointed out in the election that they regard their invention as using thermal conductivity microdetectors. The other microdetectors are not deemed to be equivalents therefore their presence in the claim is improper since they are not directed to what applicants regard as their invention.

Re claim 9, claim lines 4 and 5: Applicants are required to remove all microfabrication techniques from the claim other than etching, because applicants have expressly pointed out that they regard their invention as using an etching techniques.

Re claim 10, claim line 15: The phrase "or mounted on" is improper because applicants have elected to have the microdetectors integral with a substrate rather than

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the above recited limitation. These two recitations are not equivalents, therefore the objectionable limitation must be deleted in order for the claim to be limited to what applicants regard as their invention.

Re claim 32, claim line 15: The phrase "or mounted on" is improper because applicants have elected to have the microdetectors integral with a substrate rather than the above recited limitation. These two recitations are not equivalents, therefore the objectionable limitation must be deleted in order for the claim to be limited to what applicants regard as their invention.

Re claim 42, claim line 4: The phrase "or mounted on" is improper because applicants have elected to have the microdetectors integral with a substrate rather than the above recited limitation. These two recitations are not equivalents, therefore the objectionable limitation must be deleted in order for the claim to be limited to what applicants regard as their invention.

### ***Double Patenting***

8. Applicant is advised that should claims 6, 30, 31, 37, 38, 39, 40, 41, 60, 61, and 62 be found allowable, claims 7, 69, 70, 71, 72, 73, 74, 75, 76, 77, and 78 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

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9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 55, 58, 59, and 63-68 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 37, 40, 41, and 43-48 of U.S. Patent No. 6,701,774. Although the conflicting claims are not identical, they are not patentably distinct from each other because all of the limitations of application claim 55 are recited in patented claim 37.

With respect to the limitations of application claim 58, patented claim 40 recites the steps of injecting and vaporizing the liquid samples as recited.

With respect to the limitations of application claim 59, patented claim 41 recites all of the limitations cited in the application claim.

With respect to the limitations of application claim 63, patented claim 43 recites



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all of the structure cited in the application claim including the limitation that the microdetectors are detachably mounted on the microdetector array. The scope of patented claim 43 is narrower than the scope of application claim 63, therefore, the scope of patented claim 43 overlaps that of application claim 63.

With respect to the limitations of application claims 64-68, patented claims 44-48 recite all of the limitations cited in the application claim.

### ***Conclusion***


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Larkin whose telephone number is 571-272-2198. The examiner can normally be reached on 8:00 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel Larkin  
AU 2856  
02 October 2006

  
DANIEL S. LARKIN  
PRIMARY EXAMINER